BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work: **Estimate for Improvements to Roads and drains of Varadrajnagar 2nd stage roads in Ward No. 11(Kuvempunagara) in Vidyaranyapura Sub Division.**

			Est Cost Rs.					2500000.00	
Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork **excavation by manual means in ordinary soil** involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 142 / Item No. 19.1, PWD SR 2016-17**	cum							
	Drain Desilting								
	Varadrajnagar 2nd stage road W0377		2	130.00	0.45	0.25	29.25		
	Varadrajnagar 2nd stage road W0367		2	70.00	0.45	0.25	15.75		
	Varadrajnagar 2nd stage road W0369		2	70.00	0.45	0.25	15.75		
	Varadrajnagar 2nd stage road W0389		2	200.00	0.45	0.30	54.00		
	Varadrajnagar 2nd stage road W0391		2	90.00	0.45	0.25	20.25		
	Berm Cutting								
	Varadrajnagar 2nd stage road W0377		2	130.00	1.20	0.20	62.40		
	Varadrajnagar 2nd stage road W0367		2	70.00	1.35	0.20	37.80		
	Varadrajnagar 2nd stage road W0369		2	70.00	1.35	0.20	37.80		
	Varadrajnagar 2nd stage road W0389		2	200.00	1.00	0.20	80.00		
	Varadrajnagar 2nd stage road W0391		2	90.00	1.00	0.20	36.00		
	cross road		1	50.00	5.00	0.20	50.00		
	Varadarajnagar 2nd stage road W0048		2	60.00	1.00	0.20	24.00		
	for drain		1	92.00	1.00	0.90	82.80		
	Culvert		1	5.00	2.00	1.20	12.00		
	Basic Rate	82.00					**557.80**	199.36	**111206.00**
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		188.08							
	Area Weightage @6%	11.28							
	Total	**199.36**							
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) **Page No. 25 / Item No. 5.33 PWD SR 2016-17**	Sqm							
	Varadrajnagar 2nd stage road W0377		2	60.00		1.35	162.00		
	Varadrajnagar 2nd stage road W0367		2	40.00		1.35	108.00		
	Varadrajnagar 2nd stage road W0369		2	30.00		1.35	81.00		
	Varadrajnagar 2nd stage road W0389		2	75.00		1.35	202.50		
	Varadrajnagar 2nd stage road W0391		2	40.00		1.35	108.00		
	Basic Rate	76.00					**661.50**	80.56	**53290.00**
	Area Weightage @ 6%	4.56							
	Total	**80.56**							

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	KSRB 4-1.3 : Providing and laying in position **plain cement concrete of mix 1:4:8** with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation**, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.3 of PWD SR 2016-17**	Cum							
	for culvert		1	5.00	1.00	0.15	0.75		
	for RCC drain		1	92.00	2.00	0.15	27.60		
	Basic Rate	4867.00					**28.35**	5159.02	**146258.00**
	Area Weightage @ 6%	292.02							
	Total	**5159.02**							
4	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in **basement with cement mortar 1:6**, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 **Page No. 23 / Item No. 5.9, PWD SR 2016-17**	Cum							
	for culvert		2	5.00	0.60	0.90	5.40		
	Basic Rate	5005.00					**5.40**	5305.30	**28649.00**
	Area Weightage @ 6%	300.30							
	Total	**5305.30**							
5	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills,** ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.6 PWD SR 2016-17**	Cum							
	for culvert coping		1	5.00	1.80	0.10	0.90		
	Ramp		2	5.00	1.00	0.15	1.50		
	Basic Rate	5441.00					**2.40**	5767.46	**13842.00**
	Area Weightage @ 6%	326.46							
	Total	**5767.46**							
6	Providing and laying **cement concrete** using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete **(RMC) M 20** for R.C.C works laid in 15 cms thick layers and well compacted vibrating, curing, **for raft foundation column footing , main and secondary beams** with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) **Page No. 18, Item No. 4.48, PWD SR 2016-17**	Cum							
	For RCC Drain bottom		1	92.00	0.90	0.15	12.42		
	side wall		2	92.00	0.15	0.75	20.70		
	Basic Rate	5879.00					**33.12**	6231.74	**206395.00**

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Area Weightage @ 6%	352.74							
	Total	**6231.74**							
7	KSRB 4-6.4 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for **vertical surface** such as walls at any thickness, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 **Page No. 15 / It No. 4.31 PWD SR 2016-17**	Sqm							
	RCC Drain Side Wall		4	92.00		0.75	276.00		
	Basic Rate	293.00					**276.00**	310.58	**85720.00**
	Area Weightage @ 6%	17.58							
	Total	**310.58**							
8	KSRB 4.9.2 : Providing **T.M.T steel reinforcement for R.C.C work** including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 **- TMT bars Fe 500 Page No. 17 / Item No. 4.46.2, PWD SR 2016-17**	Tonne							
				33.12	0.060	T/cum	**1.99**	59413.00	**118066.00**
	Basic Rate	56050.00							
	Area Weightage @ 6%	3363.00							
	Total	**59413.00**							
9	Providing **precast slab of 230 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	RCC Drain Slab		1	5.00	1.50		7.50		
							7.50	1760.00	**13200.00**
9	Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	RCC Drain covering slabs		1	92.00	0.90		82.80		
							82.80	1760.00	**145728.00**
10	KSRRB 300-47. **Scarifying kankar / gravel /** metal crust upto 150mm thick with pick axes and disposal of stuff including cost of all labour charges complete as per specifications. MORTH / Chapter 3 **Page No. 147 / Item No. 19.53 PWD SR 2016-17**	Sqm							
	Varadrajnagar 2nd stage road W0377		2	130.00	1.35		351.00		
	Varadrajnagar 2nd stage road W0367		1	70.00	5.00		350.00		
	Varadrajnagar 2nd stage road W0369		1	70.00	5.00		350.00		
	Varadrajnagar 2nd stage road W0389		2	200.00	1.35		540.00		
	Varadrajnagar 2nd stage road W0391		2	90.00	1.20		216.00		
	cross road		1	50.00	5.00		250.00		

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Varadarajnagar 2nd stage road W0048		2	60.00	1.20		144.00		
	Basic Rate	25.00					**2201.00**	26.50	**58327.00**
	Area Weightage @ 6%	1.50							
	Total	**26.50**							
11	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **Page No. 158 / Item No. 20.18, PWD SR 2016-17**	Cum							
	Varadrajnagar 2nd stage road W0377		2	130.00	1.35	0.20	70.20		
	Varadrajnagar 2nd stage road W0367		1	70.00	5.50	0.20	77.00		
	Varadrajnagar 2nd stage road W0369		1	70.00	5.50	0.20	77.00		
	Varadrajnagar 2nd stage road W0389		2	200.00	1.35	0.20	108.00		
	Varadrajnagar 2nd stage road W0391		2	90.00	1.20	0.20	43.20		
	cross road		1	50.00	5.00	0.20	50.00		
	Varadarajnagar 2nd stage road W0048		2	60.00	1.20	0.20	28.80		
	Basic Rate	1668.00					**454.20**	1768.08	**803062.00**
	Area Weightage @ 6%	100.08							
	Total	**1768.08**							
12	KSRRB M500-6. Providing and applying **primer** coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 **Page No. 161 / Item No. 21.6, PWD SR 2016-17**	Sqm							
	Varadrajnagar 2nd stage road W0377		1	130.00	5.50		715.00		
	Varadrajnagar 2nd stage road W0367		1	70.00	5.50		385.00		
	Varadrajnagar 2nd stage road W0369		1	70.00	5.50		385.00		
	Varadrajnagar 2nd stage road W0389		1	200.00	5.50		1100.00		
	Varadrajnagar 2nd stage road W0391		1	90.00	5.50		495.00		
	cross road		1	50.00	5.00		250.00		
	Varadarajnagar 2nd stage road W0048		1	60.00	5.50		330.00		
	Basic Rate	26.00					**3660.00**	27.56	**100870.00**
	Area Weightage @ 6%	1.56							
	Total	**27.56**							

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Description of item	Unit	No	L	B	D	Qty	Rate	Amount
KSRRB M500-18. Providing and laying **semi dense bituminous concrete** using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 508 complete in all respects complete as per specifications. - using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (25 mm to 30 mm) with 5 % VG-10 Bitumen **Page No. 164 / Item No. 21.20.12 PWD SR 2016-17**	cum							
Varadarajnagar 2nd stage road W0377		1	130.00	5.50	0.025	17.88		
Varadarajnagar 2nd stage road W0367		1	70.00	5.50	0.025	9.63		
Varadarajnagar 2nd stage road W0369		1	70.00	5.50	0.025	9.63		
Varadarajnagar 2nd stage road W0389		1	200.00	5.50	0.025	27.50		
Varadarajnagar 2nd stage road W0391		1	90.00	5.50	0.025	12.38		
cross road		1	50.00	5.00	0.025	6.25		
Varadarajnagar 2nd stage road W0048		1	60.00	5.50	0.025	8.25		
						91.50	**6445.86**	**589796.00**
Basic Rate	6081.00							
Area Weightage @ 6%	364.86							
Total	**6445.86**							
Sub Total								**2474409.00**
Third Party Inspection Charges @ 1%								**24744.00**
Add for unforseen and rounding off	L/S							**847.00**
							Total	**2500000.00**
Rupees Twenty Five Lakh(s) Only								

Certificate:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per P.W.D S.R of 2016-17.
3 This work included under 2016-17 POW Grant.
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

Administrative Approval
Accorded For ..... 25.00 Lakh Rs.
Head of A/C..... P1771 .....
CER NO :..... 124 ..... Dt:.. 12/01/17

TA CE (YNK)

Technical Sanction
Accorded For ..... 25.00 Lakh Rs.
Head of A/C..... P1771 .....
CER NO :..... 107 ..... Dt:.. 12/01/17

TA CE (YNK)

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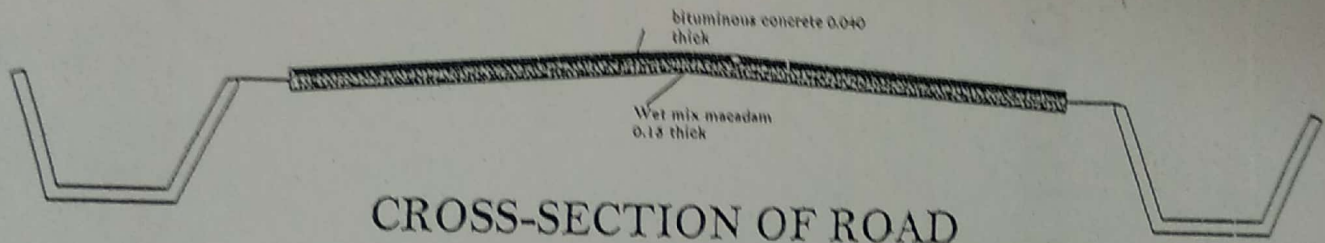

CROSS-SECTION OF ROAD

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Wet mix macadam

bituminous concrete

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ವಿದ್ಯಾರಣ್ಯಪುರ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃ. ಬೆಂ. ಮ. ಪಾ., ಬೆಂಗಳೂರು-97.

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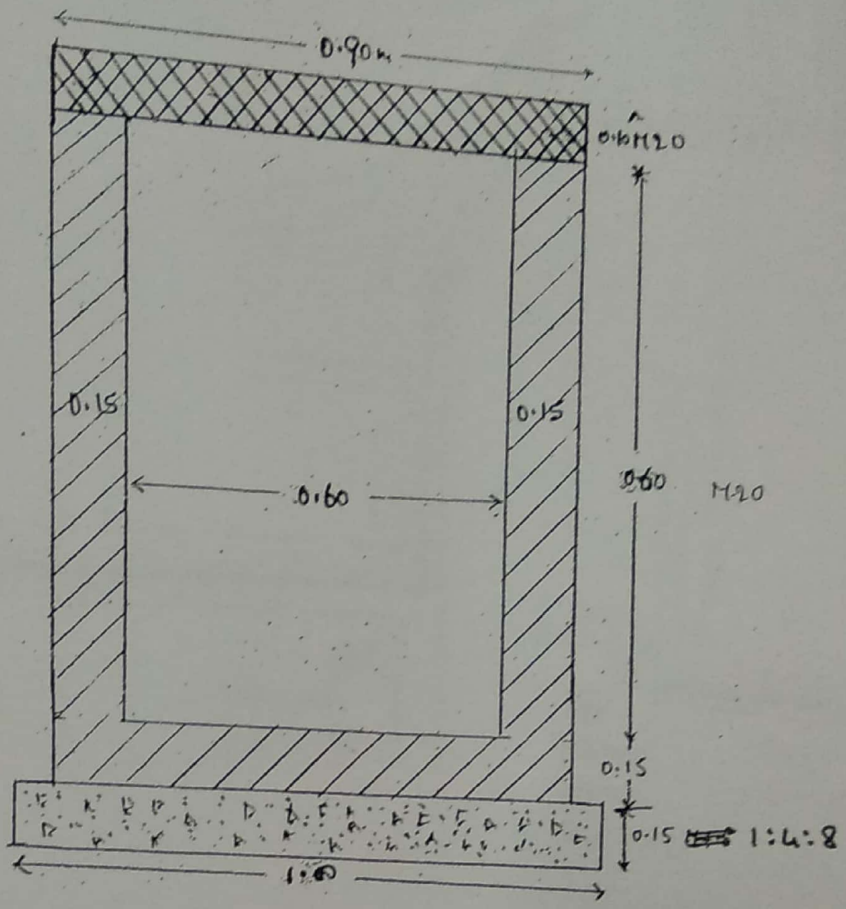

CROSS SECTION OF CC DRAIN

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